Exploring a Partnership for the City of Raleigh and Wake County Public School System for Green Infrastructure on Public School Grounds
**ABOUT THE EFC AT UNC**

The Environmental Finance Center at the University of North Carolina at Chapel Hill is part of a network of university-based centers that work on environmental issues, including water resources, solid waste management, energy, and land conservation. The EFC at UNC partners with organizations across the United States to assist communities, provide training and policy analysis services, and disseminate tools and research on a variety of environmental finance and policy topics.

The Environmental Finance Center at the University of North Carolina, Chapel Hill is dedicated to enhancing the ability of governments to provide environmental programs and services in fair, effective, and financially sustainable ways.

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INTRODUCTION

In a recent guide about Storm Smart Schools, the Environmental Protection Agency (EPA) stated:

The EPA recognizes the need for innovative and cost effective solutions to manage stormwater runoff and improve water quality to meet federal Clean Water Act (CWA) goals. School grounds present unique opportunities for onsite stormwater management. Public school systems or departments of education typically own or manage large amounts of public land in any given community. Impervious surfaces such as rooftops, basketball courts, bus loops, and parking areas often cover a large percentage of a school’s site. Additionally, school sites often have open or underutilized space. Land owned by the public school system, such as sports fields, may contribute pollutants, such as fertilizer, that discharge through stormwater runoff. These sites provide opportunities for Best Management Practices (BMPs) installation and/or stormwater retrofits to improve stormwater treatment.¹

This unique opportunity has been one that numerous communities around the country have explored and made use of. Whether driven by a desire to become a greener community, to comply with federal and state stormwater regulations, or to improve the aesthetics and facilities of schoolyards, utilities and other local government entities are finding ways to develop healthy and lasting partnerships with school districts. In early 2016, the Pisces Foundation provided grant funds to organizations working in seven urban watersheds, including the Raleigh/Durham region. Specifically, the funds are being used to expand Integrated Water Management (IWM). IWM is transitioning from a system that manages water quality and quantity in isolation to a more powerful and integrated paradigm. IWM includes integrating stormwater as a water resource and utilizing stormwater management as a tool to green communities, support nature, sustain farms and businesses, and to create economic opportunities. The Pisces Foundation funds are intended for national and local groups, such as The Conservation Fund, to use in working together with utilities, city officials, and the public to come up with smart and innovative water solutions.

Using some of the Pisces Grant funds, The Conservation Fund of North Carolina contracted with the Environmental Finance Center at the University of North Carolina to work with the City of Raleigh on investigating how the City could support green infrastructure on public school sites in its jurisdiction. This report is a product of the research done on behalf of Raleigh.

WHY PARTNER?

City of Raleigh

Currently, there are 64 active public school properties in Raleigh, which together cover 1445 acres (62,938,494 square feet) and which have a total of 461 acres (20,097,182 square feet) of impervious surface. A green infrastructure partnership with the Wake County Public School System (WCPSS) could have a significant impact toward reducing stormwater pollution, and could be incredibly beneficial for the City, the schools, and the environment.

Managing stormwater is necessary for regulatory compliance in the City of Raleigh. The following list is taken directly from the City’s policy statement, Resolution 2015-83, which amended the existing “City of Raleigh


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Stormwater Quality Cost Share Policy.” In its policy statement, the City identified multiple drivers for using its cost share program to help finance stormwater control measures (SCMs) including:

1. A number of Raleigh’s streams and water bodies are considered impaired based on current levels of pollution;
2. Raleigh has a mandate to reduce stormwater pollutants in runoff to the Maximum Extent Possible (MEP);
3. In the watersheds of Perry Creek and Pigeon House Creek, the City has an additional mandate as part of the establishment of a Total Maximum Daily Load (TMDL), to develop a recovery plan to restore water quality;
4. Retrofits are mandated under the City’s NPDES [(National Pollutant Discharge Elimination System)] and Neuse River Nutrient Sensitive Watershed requirements and are essential to meeting the MEP goal;
5. Federal prohibition on in-stream water quality structures is limiting retrofit alternatives;
6. Raleigh’s citizens have demonstrated a strong interest in taking a more active role in improving water quality; and
7. Currently there are no other City of Raleigh funding mechanisms to assist citizens in improving water quality through the installation of best management practices.  

Thus, the City of Raleigh has multiple reasons for supporting the implementation of SCMs on residential and commercial properties throughout the city, and has a cost share program in place to help facilitate that support. A partnership with WCPSS would help the City further these goals and priorities.

**Wake County Schools**

Currently, the benefits of a partnership with the City of Raleigh for WCPSS would be mainly aesthetic, educational, and environmental. Because the City of Raleigh has not established a stormwater fee credit related to water quality improvements, there is not currently a consistent financial incentive for the schools or the district to participate in the cost share program. However, based on the examples outlined below, the school and community benefits could be immense.

Additionally, for some school sites in WCPSS, with unique stormwater needs, there may be additional flood control and drainage benefits if they are able to partner with the City to utilize cost share funds. In particular, a school that has a lot of impervious surface area, but which does not have to meet a lot of regulation requirements could benefit substantially from using the cost share program funds, which are not available to be used to meet regulatory requirements.

**PERCEIVED BARRIERS TO A SUCCESSFUL PARTNERSHIP**

In 2014, Joyner Elementary School, using funds from the City of Raleigh’s Stormwater Quality Cost Share Program, completed construction of rain gardens on its campus. The relationship between the City and Joyner brought to light some issues that would need to be addressed in order for a district wide school partnership with the City to be successful.

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Implementation of the Joyner Elementary rain gardens was facilitated by some interested parents on the Parent Teacher Association (PTA) at the school, which led to challenges for several reasons. The individual parents at Joyner who were driving the partnership and pushing for the rain gardens moved on within a couple of years, and the PTA has had difficulties in following through with its commitment of being responsible for the maintenance of the rain gardens. Additionally, from a practical standpoint, the PTA has limited access to the school grounds, and so is not the ideal entity to be responsible for maintaining any SCMs on school sites.

In light of the limitations associated with the PTA acting as the facilitator of the partnership, the City expressed concerns about who the right facilitator should be. Currently, the City has not identified a contact at the WCPSS to work with on developing a partnership, and any contacts that have been made by the City have not resulted in any progress toward partnering. This lack of a stable partnering representative from the schools or district is the biggest challenge the City expressed.

There are other perceived barriers or challenges that the City mentioned. WCPSS and the City have different contractual provisions and requirements related to employees, which poses a potential concern for having city contractors cleared to go out on school sites for maintenance purposes. Additionally, the City acknowledged that the current contractual requirement for cost share participants to be responsible for funding and managing or overseeing maintenance for ten years may be difficult for the schools to commit to in light of the struggles that Joyner has had.

Several representatives from WCPSS were contacted during the research for this report, but did not respond. Thus, it is unclear what WCPSS might perceive to be a barrier or concern related to a partnership with the City of Raleigh.

**Examples of Successful Partnerships**

*Philadelphia Green Schools Alliance*

The Philadelphia Water Department (PWD) has a successful partnership open to public and private schools within its jurisdiction called “Green Schools.” Schools account for 1400 acres in Philadelphia’s combined sewer area, and 67 percent of that acreage is covered by impervious surfaces. In 2012, the City of Philadelphia entered into a consent decree with the EPA to commit to meeting substantial reductions in stormwater pollution through green infrastructure, as outlined in its Green City, Green Waters program.

A partnership between the Philadelphia Water Department (PWD) and the different schools in its jurisdiction is a win for both PWD and the schools. PWD has to meet certain stormwater reductions due to the consent decree, and therefore needs to invest in greenwater infrastructure on as much property as it can. A partnership between PWD and the schools gives PWD access to the 1400 acres of school property on which green stormwater infrastructure can be installed. PWD also offers up to an 80 percent reduction in the stormwater charge when a property is able to manage all of its stormwater onsite, which can be a significant financial incentive depending on the size of the school property. Therefore, schools can receive a financial benefit, as well as the other educational, recreational, and aesthetic benefits from installing green stormwater infrastructure.
Staff from PWD indicated that there are currently two different ways that they have been partnering with schools to support the installation of stormwater infrastructure on school sites. Both make use of PWD’s Stormwater Management Incentives Program (SMIP) grants. SMIP grants are available for non-residential properties to be used for projects that address stormwater management. The first way that PWD has been partnering with schools is through a third party, such as the Trust for Public Land or a “friends of” community group. The third party itself can apply for the SMIP grant and be the executor of the agreement. In that case, they would facilitate the project in whole, by leasing or licensing the property from the school, but always, the school district would be required to sign the 45-year Operation and Maintenance agreement with PWD. Alternatively, the community group can initiate the project and then take it to the school district and have them apply for the SMIP grant. The biggest driver for the third party groups has to do with either an environmental mission, such as the case of the Trust for Public Land, or an interest by the members in improving a specific school or neighborhood.

The second way PWD partners with schools is to have the school district itself apply for the SMIP grants on behalf of individual schools. One of the biggest drivers for the school district to initiate projects on its own is the financial incentive. PWD offers a large stormwater fee credit, up to 80 percent of the stormwater fee, based on the amount of stormwater managed on site, which depending on the size of the school, can be substantial. A second big driver to partner is the school district’s own sustainability plan, which includes a lofty goal of greening roughly five schoolyards per year.

Staff from PWD indicated that the biggest struggle with both of the partnership models above has been ensuring long-term maintenance of the SCMs. The SMIP grants cover design and implementation, but not maintenance. PWD has had problems with ensuring that the school is following through on the maintenance they have promised to do, similar to the concern that stormwater staff from the City of Raleigh have expressed. Currently, PWD tries to address this problem in part by making sure that they have standardized the expectations and requirements for the grantee making clear from the inception of the project what sort of maintenance will be required. Additionally, if a third party is the grantee, the school district has the possibility of contracting with the third party community group to have them cover the maintenance for a couple of years.

A more comprehensive way that PWD may deal with the maintenance concerns is to utilize a third path to partnering, which would entail PWD itself coming on to school properties to implement the SCMs itself. This would be done through a property interest agreement in the form of an easement, which would allow PWD to own and continue to maintain the SCMs. PWD currently has a couple of schools that it is using to try to pilot this process.

Staff from PWD indicated that they have worked on ways to incentivize participation by schools in the Green Schools Alliance. They provide a green ribbon award for schools which participate. They also have created educational curriculum for schools to utilize in incorporating stormwater into education and activities. Finally,

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3 A “friends of” group is a community nonprofit group that is interested in protecting or enhancing a specific school or community.

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they have been able to track and share learning and health outcomes related to the greening of schoolyards, which they share to promote the range of benefits a school will get if it participates.

One other benefit and challenge for PWD is that the city schoolyards are open all the time to the public. It is clearly another benefit that comes with greening a schoolyard – neighborhood members benefit even if they don’t have children in the school. But, it also creates a challenge for maintenance of any SCMs, which has to be done around the schedule of an open park. This has helped to drive more partnership with PWD and the neighborhood “friends of” groups, because they are made up of individuals living in the neighborhood who can share in the maintenance obligations.

**Chicago Space to Grow**

Chicago has a successful school partnership, called “Space to Grow,” which involves Chicago Public Schools (CPS), the Chicago Department of Water Management, and the Metropolitan Water Reclamation District of Greater Chicago. Additionally, the partnership is managed by two nonprofit organizations, Openlands and the Healthy Schools Campaign. According to the Space to Grow website, Openlands “focuses on connecting people to nature where they live,” and the Healthy Schools Campaign “works to make schools healthier places for children to learn and thrive.”

Like Philadelphia, the City of Chicago has a consent decree with the EPA. Additionally, one big driver for better stormwater management in Chicago has been basement backups and flooding. Chicago does not have a stormwater fee, so there is not a financial incentive arising from reduced bills such as is found in some of the other jurisdictions. However, staff from the Healthy Schools Campaign indicated that the biggest driver for schools to participate in the partnership has been and continues to be receiving the educational and aesthetic benefits to the schools and neighborhoods, and that the partnerships would be happening even without the above mentioned stormwater related drivers.

Space to Grow has thrived despite much turmoil and turnover that has taken place in the CPS in the past few years. The way the partnership operates is that the three partnering agencies (the school district, the Dept. of Water Management, and Metropolitan Water Reclamation Dist.) each contribute a one-time payment of 500,000 dollars for each school that has been selected to participate. From a practical standpoint, this means that if a school decides not to participate, they are leaving a million dollars on the table that could be going toward improving their grounds. Space to Grow then kicks off a very involved community design process, and begins to educate the public and the school about stormwater management. Each schoolyard is designed differently to reflect the unique priorities of the neighborhood, because in the end, the school grounds are required to be open to the public as part of the partnership agreement. Thus, community members are not just getting a better schoolyard for the children of the neighborhood, they are getting a new public park.
CPS is one of the largest public land owners in the city, with more than 760 acres of impervious surface, so investment by the City in stormwater management on school grounds is a definite win for Chicago. Because many of the dollars that fund the Space to Grow program are green infrastructure dollars, the school selection process is geared toward investing in schools where the greatest stormwater reductions seem likely. Schools must be in high flood risk areas, and have a certain amount of impervious surface, but the program also looks at whether the school needs a playground or other amenities for outdoor recreation activities. Additionally, they consider the obesity levels and average income of children and families in the school or neighborhood when prioritizing which schools get selected first.

In the end, the Space to Grow projects transform the school sites. They include amenities such as turf fields, jogging tracks, edible gardens, rain gardens, and outdoor classrooms. As for management, the individual school and the CPS district share responsibilities. Thus far, there have not been major issues with maintenance of the SCMs, in part because the school and community are so integrally involved in the entire design process, so they know what they are getting into. Staff from the Health Schools Campaign indicated that the school district has been privatizing more of its maintenance, so it is a transitional time, and maintenance issues could arise with unrelated outside individuals participating in the process.

**Portland Bureau of Environmental Services and Portland Public Schools**

The Portland Bureau of Environmental Services (BES) has partnered with schools in the City in a couple of beneficial ways. In the past ten years, BES has implemented several significant SCMs on school grounds. The driver for partnering with the schools arose largely from cost-efficiencies for BES. Specifically, in the case of one significant project at Mt. Tabor Middle School, there were some major issues with sewer backups in the accompanying neighborhood, causing basement flooding. The cost of replacing the relatively new sewer lines was greater than the cost of implementing better SCMs on the school site, so BES chose to fund the cost of the Mt. Tabor project in full. However, even though the school district has received these types of fully funded projects, there have still been problems with the partnership.
The City of Portland has a stormwater fee credit for properties that manage the stormwater on-site, so the schools have been eligible for fee credits after the SCMs are installed. BES communicated to the schools that the fee credit would be enough to cover the ongoing maintenance of the SCMs, but according to the staff from BES, the school district has still been resistant to having to maintain the facilities.

Staff from BES communicated that there were challenges in working with the school district, and that the success of the partnerships was primarily driven by the sustainability coordinator in the school district, who was a champion of partnering.

BES has tried different approaches to handling maintenance of the SCMs. In one case, the Mt. Tabor project, BES actually contractually agreed to maintain the facility for ten years, something which was not cost-effective. In another case, BES got a permanent easement and owns and manages the facility. They have also tried giving the schools money for stormwater projects directly through a grant program, and have provided an Americorps volunteer to help with maintenance. From the perspective of staff from BES, partnering with the schools on large projects was challenging, and they do not have an ongoing program to continue developing school projects at this time.

However, BES does have a GreenBucks program. Through the GreenBucks program, wastewater customers can provide voluntary contributions on their wastewater bill to help maintain green infrastructure on public schools. This is another great opportunity for residents to contribute directly to the improvement and upkeep of SCMs at their neighborhood schools.

**Boston Water and Sewer Commission and Boston Public Schools**

BWSC, a separate entity from the City of Boston, holds a Phase I NPDES permit and the EPA, rather than the State of Massachusetts directly oversees BWSC. There is a TMDL for Phosphorus for the Charles River, and a consent decree related to the TMDL, which has led BWSC to explore ways to reduce Phosphorus loading from stormwater on public properties in the city. Because the City of Boston is not on the hook for any Phosphorus reductions or subject to the consent decree, BWSC has had to initiate conversations with public entities in the city to try to convince them to partner to reduce stormwater pollution.

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4Under the Clean Water Act, Phase I National Pollution Discharge Elimination System (NPDES) permits are required for medium and large cities or certain counties with populations of 100,000 or more, and the permit helps them regulate their stormwater discharges.
The partnership between BWSC and BPS, thus, was initiated and promoted by BWSC, and according to staff from BWSC, was not easy to kick off. BWSC offered to fund, in full, the installation of SCMs on the school properties and to maintain the SCMs for the first three years after installation. This is one way that BWSC addressed the concerns related to how the SCMs would be maintained. Staff from BWSC indicated that there was no one on the facilities staff at BPS who was familiar with how to maintain SCMs. Thus, contracting to provide three years of managing the SCMs gives BWSC an opportunity to ensure that the knowledge and training is in place for the school and any volunteer groups in the surrounding neighborhoods to be able to maintain the SCMs once BWSC has stopped managing them.

BWSC took a couple of steps to help the partnership become a success. Staff from BWSC indicated that they met with the individual administrators from the five pilot schools that they have been working with, before beginning any design processes, to get a sense for where stormwater issues might currently exist on the school sites. For example, they posed questions about whether the school had issues with flooding or draining, or had cracked pavement. These upfront concerns created a starting point for designing appropriate SCMs for each site. Additionally, BWSC hired a curriculum author from BPS to write stormwater infrastructure curriculum for fifth and seventh grades, which could be folded into existing curriculum.

Although staff from BWSC indicated that there was initially resistance and difficulty in getting BPS on board with these projects, they also stated that once they completed the SCMs on the first of the school sites, the benefits were much easier to see and it has been easier now to incentivize more participation and excitement about the process. The five pilot sites have been or are being improved with amenities, such as added green space, paths, trees and accompanying shade, and are also getting new educational tools, such as onsite monitoring areas where students can learn about urban stormwater management. The more that schools in the community can see the tremendous benefits at the pilot sites, the more participation they anticipate having from other schools.

As in other of the partnerships discussed above, BPS holds a lot of public land in the city, and thus, the partnership with BPS provides an avenue for BWSC to help meet Phosphorus reduction goals, while also contributing to a transformation of public schoolyards.

**WHAT MAKES A HEALTHY PARTNERSHIP?**

Although there is no magic recipe for a perfect partnership to implement green infrastructure on school grounds, there are some key components from existing partnerships that have helped facilitate healthy partnering.

**Champions for the Partnership**

One key component of healthy school/local government partnerships is champions, especially on behalf of the schools. That champion could be a voice on the school board, a representative from the schools themselves or from the district, or members or organizations in the community. Whoever the champion is, it needs to be a voice or presence that will be around beyond the implementation phase to help ensure that the SCMs are being used and maintained properly, and that the impacts and benefits are being tracked and highlighted. In the case of Portland, the champion was an individual on the school district, who was essential to the partnership. When asked about what made the partnership work or not, the staff from BES responded confidently that there has to be a champion from the schools. For Chicago, on the other hand, there are two strong nonprofit organizations acting as constant champions and facilitators of the partnerships with the school district and government.
agencies, and this had made and continues to make that partnership an ongoing success. Staff from Healthy Schools Initiative indicated that they started their program with four pilot schools, and they now have a commitment to do thirty-four schools by the end of 2020.

**Drivers that Bring Schools and Government Entities to the Table**
A second component in bringing about healthy partnerships is drivers, regulatory or otherwise that motivate the schools and government entities to partner. For Philadelphia, the City has the consent decree with lofty stormwater reduction goals which brings them to the table, and the school district has a high stormwater fee, which can be reduced through fee credits if they implement SCMs on their grounds. Both Chicago and Portland have issues with backups and basement flooding, so a cost-effective means to address those problems is through better stormwater control on school grounds. Chicago has a strong financial incentive, in that for the amount the school district has to contribute to better one school’s grounds, they get 200 percent more from other government entities. BSWC has a consent decree and a need to meet significant Phosphorus reductions in the city, and they are offering schools the full cost of transforming their schoolyards as well as assistance with maintenance for three years beyond completion of the projects.

**Recreational or Educational Materials**
Even with drivers, such as financial incentives for the schools, there should also be an incorporation of the SCMs into the learning process. The SCMs should be created with school curriculum in mind or in conjunction with curriculum, so that they can be used for teaching opportunities. All of the partnerships discussed above included a teaching element for the students, and the further that the governmental agencies have gone in developing and promoting that curriculum piece, the more successful the partnerships have appeared to be.

Where applicable, SCMs can also provide recreational activities or facilities for the students. Philadelphia, Chicago, and Boston have all seen major transformations of their schools from completely impervious facilities to grounds with gardens and greenspace. They are not going so far as to put in playgrounds, but the addition of outdoor amenities as simple as turf, paths, or shade trees provides tremendous possibilities for students to increase their recreational activities.

**Community Involvement**
Whether a community group is the entity first initiating the process of getting a school to transform its schoolyard with SCMs, as is happening for some schools in Philadelphia, or whether the community is engaged to reap the benefits and help share the obligations of the new community resource that a greened schoolyard creates, the more community involvement, the better.

Chicago offers a great example of how community involvement can support a healthy partnership. As soon as the school receives acceptance to participate in the program, the Space to Grow staff start the community involvement process. At the forefront of the design process are the priorities of the individual neighborhood within which the school is located, because in the end, the schoolyard will also be a public park and not just benefit the children in the school. This can help instill pride and responsibility in community members living in the neighborhoods where the green schoolyards are located.

**Clear Expectations of all Parties**
Several individuals from the partnerships discussed above communicated a resistance from schools, in part, arising from a lack of clear expectations of what SCMs on school sites will require, particularly regarding costs and maintenance. Some of the ways that these partnerships discussed have addressed that concern has been through simplified and clear contractual language and through the creation of simplistic materials for schools to use as they participate in the process. Additionally, having a consistency of contacts in the school district and at the government agencies or nonprofits can help keep things clearer. For PWD, they have partnership specialists for their large partnerships to help act as liaisons and to provide support for all the participating entities. Staff
from BWSC indicated that they provide each school with maintenance manuals unique to the SCMs they will be installing on their sites.

**Technical and Financial Support for Ongoing Maintenance**

Although it may seem to be the most challenging, the provision of technical and financial support for the ongoing maintenance of the SCMs on school sites seems like one of the most important components of a healthy partnership. There does not appear to be one way to address this need, and the partnerships discussed above have handled it differently. Portland’s BES handled the operation and maintenance of one of their installations for ten years to ensure it was done properly. Staff from PWD indicated that they are exploring using easements and owning and operating the SCMs themselves, in part, so they can ensure that they are properly maintained. BWSC is agreeing to keep up with the maintenance for a three year window, during which they can work out any issues and pass the baton with more confidence. Additionally, there is a possibility for grant or funding processes to be modified to include provision of funds that can support maintenance for a certain period of time.

**WHAT NEXT FOR RALEIGH?**

**Partner, Partner, Partner**

Despite Raleigh’s cost share program funding and its enthusiasm in investigating how the City might support SCMs on schoolyards in Wake County, the City lacks a strong partner to help facilitate that process. Although there are some components of the partnership that Raleigh has no control over, such as what the regulatory environment is in the City and State, many of the components of a healthy partnership discussed above could be attainable with the support of partners outside of the City or WCPSS.

Partners can support schools with the administrative details of applying to participate in something like a cost share program. Partners can raise or provide additional funding to cover costs required for implementation or maintenance of SCMs. Partners can promote the benefits and track and publicize the accomplishments of projects. And partners can put political pressure on the school board or other elected officials to urge their cooperation and participation in these sorts of projects to better their schools.

**Create Curriculum or other Educational Materials for Schools and Students**

Whether the City determines that it wants to go for a partnership with schools beyond its current cost share program or not, the City should create clear materials that lay out expectations of the school or school district for SCMs that could currently be implemented. Recently, The Environmental Finance Centers at Wichita State University and the University of Maryland worked together to support a partnership between the City of Omaha and the Omaha Public School District. They created materials to inform the general public and the participating parties about what green infrastructure is and why it is important, about how schools can get involved in implementing green infrastructure on their school grounds, and about what the maintenance of any SCMs entails. Additionally, they created a stormwater activity to be used in the classroom. Those materials are provided in the resources at the bottom of this document to offer an example of what Raleigh might consider creating.

In addition to documents that lay out the clear expectations of the schools, and that explain green infrastructure and SCMs in general, the City should consider how it might implement curriculum for WCPSS that could accompany the types of SCMs that it would like to be putting in place on school sites. There are many examples of these types of curriculum already out there, and resource hubs such as the Children and Nature Network, which the City could use and modify as needed.
Look for Flexibility in Contract/Commitment for Public Partners

As the City investigates what is holding up a successful partnership between itself and WCPSS, and what might further incentivize a partnership, it should review its current cost-share program contracts and think about modifications that could be made for public partners such as schools. This is an area where the City might think about how they could help support maintenance both financially or technically, or could think about any requirements or limitations that might be unappealing to public partners.

Work toward a Financial Incentive beyond Cost-Share Contribution

Although the cost share program does provide a financial incentive for a school already interested in implementing SCMs, there is not currently a water quality stormwater fee credit, so there is no ongoing financial incentive for schools to jump on board to the program. While this may not be necessary, as some places like Chicago and Boston do not have stormwater fees, it is one additional driver to consider adding given that Raleigh has not indicated that it intends to fund the SCMs in full.

Identify Good Candidates for Pilot Schools

One consideration that was echoed by all of the representatives from the partnerships discussed above was the consideration of timing the SCM installation process to work within the school districts’ existing Capital Improvement Plans. For example, as Boston was considering which schools were the best to prioritize for pilot schools, they looked both at the schools where they would get the most bang for their buck by way of Phosphorus reduction, and also at schools which were about to embark on a playground renovation. Where there are opportunities to put in SCMs at the inception of other construction that is taking place, the projects will likely be more appealing to schools, and more cost-efficient. Raleigh should determine what the ideal candidates for pilot schools would look like from a stormwater standpoint, but should also consider other factors, which might make a school particularly well situated to make use of new SCMs on its grounds.

Make a Case for Greening Schoolyards

Finally, in order to further gain support from the community, other government agencies, and potential funding partners, it was recommended by some of the individuals who worked on building a case for greening Chicago schoolyards, that Raleigh pull together all the policies or procedures in the statutes governing the city, the county, and the school district itself, which may support green infrastructure on schoolyards. While this would, of course, include policies aimed at addressing stormwater and water quality concerns, it could also include other policies or initiatives at the city, county, or district level that would benefit from greener schoolyards. In the case of Chicago, they looked at City of Chicago data that showed community open space deficits, obesity rates for children in the public schools, and a lack of an ability to properly provide physical education or recess on the current school sites. By making a case for the program early on in the process, they were able to identify and target other potential partners and funders.

Conclusion

This report contains only a snippet of the many types of green infrastructure school partnerships there are across the country right now. But, even among the few discussed in detail here, it should be abundantly clear that they are all unique and the different interests of the communities, drivers from state and federal regulations, and individual school needs all affect how a partnership is put together. As the City of Raleigh continues to investigate the right type of partnership for itself and WCPSS, the examples across the country may provide options but not necessarily exact solutions for the challenges the City will inevitably face. Overall, the feedback from the different partnerships discussed in this report was positive – the cities saw improvement in stormwater management and the schoolyards were more beautiful and environmentally friendly. But, that being said, each partnership faced its challenges in getting off the ground. Thus, the City should not expect the path to partnering to be simple, but can likely expect many positive benefits if such a partnership can be established.
LINKS TO RESOURCES


Portland Oregon Mt. Tabor Middle School project: https://www.portlandoregon.gov/bes/article/217429

Portland Oregon Greenbucks Program: https://www.portlandoregon.gov/bes/52708

Green Schools Consortium of Milwaukee: http://www.gscm.reflo2o.com/about-the-gscm/

EFC Wichita Omaha Green Infrastructure Project: http://webs.wichita.edu/?u=efc&p=/project_pages/green_infrastructure/


NC State College of Design – Natural Learning Initiative https://nuralearning.org/
